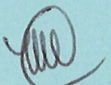


# STATE OF NEW HAMPSHIRE INTER-DEPARTMENT COMMUNICATION

  
**FROM:** Matt Urban  
Wetlands Program Manager

**DATE:** January 5, 2016

**AT (OFFICE):** Department of  
Transportation

**SUBJECT** Dredge & Fill Application  
Barnstead, 14121E  
Bureau of  
Environment

**TO** Gino Infascelli, Public Works Permitting Officer  
New Hampshire Wetlands Bureau  
29 Hazen Drive, P.O. Box 95  
Concord, NH 03302-0095

Forwarded herewith is the application package prepared by NH DOT Bureau of Highway Design for the subject Major impact project. This project is classified as Major per Env-Wt 302.03(c). The project consists of safety improvements at the intersection of NH Route 28, Peacham Road and White Oak Road. The proposed reconstruction of NH Route 28 begins approximately 3,400 feet south of Peacham Road and White Oak Road, and extends north approximately 4,600 feet. Turn lanes will be constructed on NH Route 28 to provide exclusive right and left turn lanes in the northbound direction, and an exclusive left and a shared thru/right lane in the southbound direction. The improvements to Peacham Road extend approximately 800 feet east of the intersection. The improvements to White Oak Road extend approximately 900 feet west of the intersection. In addition, the approaches of White Oak Road, Yield Road, and Lake Shore Drive will be modified to eliminate the connection of Yield Road and Lake Shore Drive with NH Route 28. Instead, these roads will be united just to the west of NH Route 28, with a single connection to White Oak Road. Improvements to Lake Shore Drive extend approximately 300 feet west of its current intersection with NH Route 28.

This project was presented at the Natural Resource Agency Coordination Meeting on the following dates: 3/19/2014, 9/17/2014. Below is a link to where the minutes can be found on the Departments website. The meeting minutes have also been included within this application package.  
<http://www.nh.gov/dot/org/projectdevelopment/environment/units/project-management/nracrmeetings.htm>

This project will require mitigation in the form of a one time in lieu fee payment into the Arm-Fund in the amount of \$145,005.29.

The lead people to contact for this project are Don Lyford, Highway Design (271- or 2171 dlyfordl@dot.state.nh.us) or Matt Urban, Wetlands Program Manager, Bureau of Environment (271-3226 or murban@dot.state.nh.us).

A payment voucher has been processed for this application (Voucher #396044) in the amount of \$7,471.60.

If and when this application meets with the approval of the Bureau, please send the permit directly to Matt Urban, Wetlands Program Manager, Bureau of Environment.

MRU:mru  
Enclosures  
cc:  
BOE Original  
Town of Barnstead (4 copies via certified mail)  
Bureau of Construction  
Darrel Elliott, Bureau of Environment  
Carol Henderson, NH Fish and Game  
Edna Feighner, NHDHR  
Maria Turr, USFWS  
Mark Kern, EPA  
Michael Hicks, US Army Corp of Engineers

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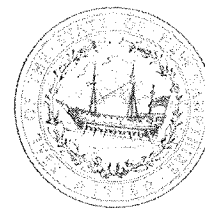


# WETLANDS PERMIT APPLICATION

Water Division/ Wetlands Bureau

Land Resources Management

Check the status of your application: <http://des.nh.gov/onestop>



RSA/Rule: Env-Wq 100-900

Administrative Use Only	Administrative Use Only	Administrative Use Only	File No.:
			Check No.:
			Amount:
			Initials:

## 1. REVIEW TIME:

Indicate your Review Time below. Refer to Guidance Document A for instructions.

☒ Standard Review (Minimum, Minor or Major Impact)

☐ Expedited Review (Minimum Impact only)

## 2. PROJECT LOCATION:

Separate applications must be filed with each municipality that jurisdictional impacts will occur in.

ADDRESS: **NH Route 28 and Peacham Road and White Oak Road**

TOWN/CITY: **Barnstead**

TAX MAP: **N/A**

BLOCK: **N/A**

LOT: **N/A**

UNIT: **N/A**

USGS TOPO MAP WATERBODY NAME: **Included**

☐ NA

STREAM WATERSHED SIZE:

☒ NA

LOCATION COORDINATES (If known):

☐ Latitude/Longitude ☐ UTM ☒ State Plane

## 3. PROJECT DESCRIPTION:

Provide a brief description of the project outlining the scope of work. Attach additional sheets as needed to provide a detailed explanation of your project. DO NOT reply "See Attached" in the space provided below.

**This project will reconstruct the intersection of NH Route 28, Peacham Road, and White Oak Road and widen a segment of NH Route 28 to improve safety. Improvements will also be made to Peacham Road and White Oak Road. The access points of Lake Shore Road and Yield Road with NH Route 28 will be discontinued. The proposed layout connects Lake Shore Road with Yield Road with access from White Oak Road.**

## 4. SHORELINE FRONTAGE

☒ NA This lot has no shoreline frontage.

SHORELINE FRONTAGE:

Shoreline frontage is calculated by determining the average of the distances of the actual natural navigable shoreline frontage and a straight line drawn between the property lines, both of which are measured at the normal high water line.

## 5. RELATED PERMITS, ENFORCEMENT, EMERGENCY AUTHORIZATION, SHORELAND, ALTERATION OF TERRAIN, ETC...

## 6. NATURAL HERITAGE BUREAU & DESIGNATED RIVERS:

See the Instructions & Required Attachments document for instructions to complete a & b below.

a. Natural Heritage Bureau File ID: NHB **15** - **2437**

b. ☐ Designated River the project is in ¼ miles of: \_\_\_\_\_; and  
date a copy of the application was sent to Local River Advisory Committee: Month: \_\_\_\_ Day: \_\_\_\_ Year: \_\_\_\_

☒ NA

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

<b>7. APPLICANT INFORMATION (Desired permit holder)</b>			
LAST NAME, FIRST NAME, M.I.: <b>Donald Lyford, PE</b>			
TRUST / COMPANY NAME: <b>NHDOT - Highway Design</b>		MAILING ADDRESS: <b>7 Hazen Drive, PO Box 483</b>	
TOWN/CITY: <b>Concord</b>		STATE: <b>NH</b>	ZIP CODE: <b>03302-0483</b>
EMAIL or FAX: <b>DLyford@dot.state.nh.us</b>		PHONE: <b>(603) 271-2165</b>	
ELECTRONIC COMMUNICATION: By initialing here: _____, I hereby authorize DES to communicate all matters relative to this application electronically			
<b>8. PROPERTY OWNER INFORMATION (If different than applicant)</b>			
LAST NAME, FIRST NAME, M.I.: <b>NH Department of Transportation</b>			
TRUST / COMPANY NAME:		MAILING ADDRESS: <b>7 Hazen Drive, PO Box 483</b>	
TOWN/CITY: <b>Concord</b>		STATE: <b>NH</b>	ZIP CODE: <b>03302-0483</b>
EMAIL or FAX:		PHONE: <b>(603) 271-2171</b>	
ELECTRONIC COMMUNICATION: By initialing here _____, I hereby authorize DES to communicate all matters relative to this application electronically			
<b>9. AUTHORIZED AGENT INFORMATION</b>			
LAST NAME, FIRST NAME, M.I.:		COMPANY NAME:	
MAILING ADDRESS:			
TOWN/CITY:		STATE:	ZIP CODE:
EMAIL or FAX:		PHONE:	
ELECTRONIC COMMUNICATION: By initialing here _____, I hereby authorize DES to communicate all matters relative to this application electronically			
<b>10. PROPERTY OWNER SIGNATURE:</b>			
See the Instructions & Required Attachments document for clarification of the below statements			
By signing the application, I am certifying that:			
<ol style="list-style-type: none"> <li>1. I authorize the applicant and/or agent indicated on this form to act in my behalf in the processing of this application, and to furnish upon request, supplemental information in support of this permit application.</li> <li>2. I have reviewed and submitted information &amp; attachments outlined in the Instructions and Required Attachment document.</li> <li>3. All abutters have been identified in accordance with RSA 482-A:3, I and Env-Wt 100-900.</li> <li>4. I have read and provided the required information outlined in Env-Wt 302.04 for the applicable project type.</li> <li>5. I have read and understand Env-Wt 302.03 and have chosen the least impacting alternative.</li> <li>6. Any structure that I am proposing to repair/replace was either previously permitted by the Wetlands Bureau or would be considered grandfathered per Env-Wt 101.47.</li> <li>7. I have submitted a Request for Project Review (RPR) Form (<a href="http://www.nh.gov/nhdhr/review">www.nh.gov/nhdhr/review</a>) to the NH State Historic Preservation Officer (SHPO) at the NH Division of Historical Resources to be reviewed for the presence of historical/ archeological resources.</li> <li>8. I authorize DES and the municipal conservation commission to inspect the site of the proposed project.</li> <li>9. I have reviewed the information being submitted and that to the best of my knowledge the information is true and accurate.</li> <li>10. I understand that the willful submission of falsified or misrepresented information to the New Hampshire Department of Environmental Services is a criminal act, which may result in legal action.</li> <li>11. I am aware that the work I am proposing may require additional state, local or federal permits which I am responsible for obtaining.</li> <li>12. The mailing addresses I have provided are up to date and appropriate for receipt of DES correspondence. DES will not forward returned mail.</li> </ol>			
 Property Owner Signature		Donald A. Lyford Print name legibly	7/24/15 Date

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

NHDES Wetlands Bureau, 29 Hazen Drive, PO Box 95, Concord, NH 03302-0095

[www.des.nh.gov](http://www.des.nh.gov)

## MUNICIPAL SIGNATURES

### 11. CONSERVATION COMMISSION SIGNATURE

The signature below certifies that the municipal conservation commission has reviewed this application, and:

1. Waives its right to intervene per RSA 482-A:11;
2. Believes that the application and submitted plans accurately represent the proposed project; and
3. Has no objection to permitting the proposed work.



Print name legibly

Date

#### DIRECTIONS FOR CONSERVATION COMMISSION

1. Expedited review ONLY requires that the conservation commission's signature is obtained in the space above.
2. Expedited review requires the Conservation Commission signature be obtained **prior** to the submittal of the original application to the Town/City Clerk for signature.
3. The Conservation Commission may refuse to sign. If the Conservation Commission does not sign this statement for any reason, the application is not eligible for expedited review and the application will be reviewed in the standard review time frame.

### 12. TOWN / CITY CLERK SIGNATURE

As required by Chapter 482-A:3 (amended 2014), I hereby certify that the applicant has filed four application forms, four detailed plans, and four USGS location maps with the town/city indicated below.



Town/City Clerk Signature

Print name legibly

Town/City

Date

#### DIRECTIONS FOR TOWN/CITY CLERK:

Per RSA 482-A:3,I

1. For applications where "Expedited Review" is checked on page 1, if the Conservation Commission signature is not present, NHDES will accept the permit application, but it will NOT receive the expedited review time.
2. IMMEDIATELY sign the original application form and four copies in the signature space provided above;
3. Return the signed original application form and attachments to the applicant so that the applicant may submit the application form and attachments to NHDES by mail or hand delivery.
4. IMMEDIATELY distribute a copy of the application with one complete set of attachments to each of the following bodies: the municipal Conservation Commission, the local governing body (Board of Selectmen or Town/City Council), and the Planning Board; and
5. Retain one copy of the application form and one complete set of attachments and make them reasonably accessible for public review.

#### DIRECTIONS FOR APPLICANT:

1. Submit the original permit application form bearing the signature of the Town/ City Clerk, additional materials, and the application fee to NHDES by mail or hand delivery.



**13. IMPACT AREA:**

For each jurisdictional area that will be/has been impacted, provide square feet and, if applicable, linear feet of impact

Permanent: impacts that will remain after the project is complete.

Temporary: impacts not intended to remain (and will be restored to pre-construction conditions) after the project is complete.

JURISDICTIONAL AREA	PERMANENT Sq. Ft. / Lin. Ft.		TEMPORARY Sq. Ft. / Lin. Ft.	
Forested wetland	23,405 sf	<input type="checkbox"/> ATF	3,823 sf	<input type="checkbox"/> ATF
Scrub-shrub wetland	3,816 sf	<input type="checkbox"/> ATF	2,273 sf	<input type="checkbox"/> ATF
Emergent wetland	3,915 sf	<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Wet meadow		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Intermittent stream		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Perennial Stream / River	126 sf / 37 lf	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Lake / Pond	/	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Bank - Intermittent stream	/	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Bank - Perennial stream / River	/ 75 lf	<input type="checkbox"/> ATF	/ 28 lf	<input type="checkbox"/> ATF
Bank - Lake / Pond	/	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Tidal water	/	<input type="checkbox"/> ATF	/	<input type="checkbox"/> ATF
Salt marsh		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Sand dune		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Prime wetland		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Prime wetland buffer		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Undeveloped Tidal Buffer Zone (TBZ)		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Previously-developed upland in TBZ		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Docking - Lake / Pond		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Docking - River		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
Docking - Tidal Water		<input type="checkbox"/> ATF		<input type="checkbox"/> ATF
<b>TOTAL</b>	<b>31, 262 sf / 112 lf</b>		<b>6,096 sf / 28 lf</b>	

**14. APPLICATION FEE:** See the Instructions & Required Attachments document for further instruction

☐ Minimum Impact Fee: Flat fee of \$ 200

☐ Minor or Major Impact Fee: Calculate using the below table below

Permanent and Temporary (non-docking) 37,358 sq. ft. X \$0.20 = \$ 7,471.60

Temporary (seasonal) docking structure: \_\_\_\_\_ sq. ft. X \$1.00 = \$ \_\_\_\_\_

Permanent docking structure: \_\_\_\_\_ sq. ft. X \$2.00 = \$ \_\_\_\_\_

**Projects proposing shoreline structures (including docks) add \$200 = \$ \_\_\_\_\_**

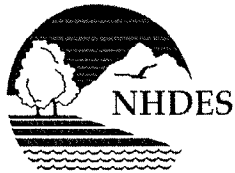
Total = \$ \_\_\_\_\_

The Application Fee is the above calculated Total or \$200, whichever is greater = \$ 7,471.60

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[www.des.nh.gov](http://www.des.nh.gov)



## WETLANDS PERMIT APPLICATION – ATTACHMENT A MINOR AND MAJOR - 20 QUESTIONS

Water Division/ Wetlands Bureau/ Land Resources Management

Check the Status of your application: <http://des.nh.gov/onestop>



RSA/ Rule: RSA 482-A, Env-Wt 100-900

**Env-Wt 302.04 Requirements for Application Evaluation** - For any major or minor project, the applicant shall demonstrate by plan and example that the following factors have been considered in the project's design in assessing the impact of the proposed project to areas and environments under the department's jurisdiction. Respond with statements demonstrating:

1. The need for the proposed impact.

This project will reconstruct the intersection of NH Route 28, Peacham Road, and White Oak Road and widen a segment of NH Route 28 to improve safety. The proposed reconstruction of NH Route 28 will begin approximately 3,400' south of the intersection with Peacham Road and White Oak Road and continue north approximately 4,750'. Turn lanes will be constructed along NH Route 28 northbound at the intersection with Peacham Road and White Oak Road.

Improvements to Peacham Road will extend approximately 800' east of the intersection with NH Route 28.

Improvements to White Oak Road will extend approximately 950' west of the intersection with NH Route 28.

The access points of Lake Shore Road and Yield Road with NH Route 28 will be discontinued. The proposed layout connects Lake Shore Road with Yield Road with access from White Oak Road.

Wetland impacts are generally associated with upgrading existing drainage structures, and wetland impacts required by shifting the alignment of NH Route 28.

2. That the alternative proposed by the applicant is the one with the least impact to wetlands or surface waters on site.

Two (2) alternatives were comprehensively evaluated for this project as outlined below:

The "No-Build" alternative would provide no safety improvements at the intersection. It is not considered viable, as it addresses neither the existing deficiencies, nor the safety concerns at the Peacham Road intersection. Given the projected increase in AADT, accident history, and the existing roadway deficiencies, intersection safety would continue to deteriorate. Therefore, this alternative would not meet the stated project Purpose and Need. In addition, the impacts associated with the Proposed Action are not of a magnitude to warrant the selection of this alternative.

Flattening the NH Route 28 curve at the Peacham Road intersection into the hillside on the east side of NH Route 28 (approx. Sta. 537+00 – Sta. 505+00) would have improved the sight distance for vehicles entering the intersection, but would have exacerbated the poor approach grades from Peacham Road, making them much more deficient. In addition, this alternative would have required impacts to properties along Ripple Road to an extent that could likely have required complete acquisition and removal of several residences. This alternative would not completely meet the stated project Purpose and Need, and would involve more substantial impacts to residential properties. Therefore, this alternative was not selected.

[shoreland@des.nh.gov](mailto:shoreland@des.nh.gov) or (603) 271-2147

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3. The type and classification of the wetlands involved.

**R2UB1 – (riverine, lower perennial, unconsolidated bottom, cobble-gravel)**

**PSS1 – (palustrine, scrub-shrub, broad leaved deciduous)**

**PFO1 – (palustrine, forested, broad-leaved deciduous)**

**PEM1 – (palustrine, emergent, persistent)**

**R2UB2 – (riverine, lower perennial, unconsolidated bottom, sand)**

**PFO/EM1 – (palustrine, forested/emergent, persistent)**

**PUB2Hx – (palustrine, unconsolidated bottom, sand, permanently flooded, excavated)**

4. The relationship of the proposed wetlands to be impacted relative to nearby wetlands and surface waters.

**Impacts associated with this project will not negatively affect nearby wetlands and surface waters. Drainage patterns will be maintained and it is not expected that hydrology will change. With the incorporation of permanent water quality treatment measures, water quality in nearby wetlands should be enhanced. Portions of wetlands will be impacted however, impacts will not be to a degree that will result in broader impacts beyond what will be permitted.**

5. The rarity of the wetland, surface water, sand dunes, or tidal buffer zone area.

**Impacted and nearby wetlands are not rare or uncommon in NH.**

6. The surface area of the wetlands that will be impacted.

**0 s.f. bank**

**37,358 s.f. wetland**

**6,096 s.f. temporary**

**31,262 s.f. permanent**

7. The impact on plants, fish and wildlife including, but not limited to:
- a. Rare, special concern species;
  - b. State and federally listed threatened and endangered species;
  - c. Species at the extremities of their ranges;
  - d. Migratory fish and wildlife;
  - e. Exemplary natural communities identified by the DRED-NHB; and
  - f. Vernal pools.

**The results of the NH Natural Heritage Bureau database review are enclosed. This review determined that the project footprint and work to be performed would not impact plants, fish, and wildlife associated with lines a. through e. above. One vernal pool does exist within the project limits, but lies outside of the proposed work footprint.**

**The project area is being evaluated for the presence of the Northern Long Eared Bat. Appropriate avoidance and mitigation measures will be included in the project design to include time of year restrictions on clearing.**

8. The impact of the proposed project on public commerce, navigation and recreation.

**With an improved roadway surface and enhanced safety, public commerce and mobility will be enhanced.**

9. The extent to which a project interferes with the aesthetic interests of the general public. For example, where an applicant proposes the construction of a retaining wall on the bank of a lake, the applicant shall be required to indicate the type of material to be used and the effect of the construction of the wall on the view of other users of the lake.

**This project does not interfere with the aesthetic interest of the general public. The work is along and within an existing transportation corridor and does not involve the application of atypical construction methods/techniques.**



10. The extent to which a project interferes with or obstructs public rights of passage or access. For example, where the applicant proposes to construct a dock in a narrow channel, the applicant shall be required to document the extent to which the dock would block or interfere with the passage through this area.

N/A

11. The impact upon abutting owners pursuant to RSA 482-A:11, II. For example, if an applicant is proposing to rip-rap a stream, the applicant shall be required to document the effect of such work on upstream and downstream abutting properties.

**This project will require that the Department purchase the necessary property rights for construction. Prior to the commencement of work, and impacts on abutting properites, all easements and acquisitions will be completed.**

12. The benefit of a project to the health, safety, and well being of the general public.

**This project will enhance safety by improving the sight distance at the NH Route 28 intersection with White Oak Road and Peacham Road, modifying the steep grades and providing platforms for queuing traffic entering the intersection, and eliminating conflicting / confusing turn movements entering and exiting Yield Road at NH Route 28.**

**The existing intersection of NH 28 with Peacham Road and White Oak Road is negatively effected by the additional conflict points presented by the adjacent NH 28 intersections with Lake Shore Drive and Yield Road.**

**The solution to this includes: connector road will be discontinued with the proposed layout. Northbound right turn lane warrants are met for the 50 mph design speed and an exclusive left turn and right turn lane will be provided. Southbound left turn lane warrents are met for the 50 mph design speed and an exclusive left turn lane will be provided.**

13. The impact of a proposed project on quantity or quality of surface and ground water. For example, where an applicant proposes to fill wetlands the applicant shall be required to document the impact of the proposed fill on the amount of drainage entering the site versus the amount of drainage exiting the site and the difference in the quality of water entering and exiting the site.

**The design will not alter the quantity of surface or groundwater, however with the incorporation of permanent and temporary water quality best management practices, water quality will be protected during construction and permanently enhanced following construction.**

14. The potential of a proposed project to cause or increase flooding, erosion, or sedimentation.

**The design will not cause or increase flooding, erosion or sedimentation. With the incorporation of permanent and temporary water quality best management practices, water quality will be protected during construction and permanently enhanced following construction. In addition, flooding, erosion and sedimentation risk will be reduced.**

15. The extent to which a project that is located in surface waters reflects or redirects current or wave energy which might cause damage or hazards.

**N/A**



16. The cumulative impact that would result if all parties owning or abutting a portion of the affected wetland or wetland complex were also permitted alterations to the wetland proportional to the extent of their property rights. For example, an applicant who owns only a portion of a wetland shall document the applicant's percentage of ownership of that wetland and the percentage of that ownership that would be impacted.

**NA. The Abutters would not be constructing a similar highway design project.**

17. The impact of the proposed project on the values and functions of the total wetland or wetland complex.

**The potential impact of the proposed project on functions and values will be minimal. The design minimizes impacts to the extent practicable and remaining wetland systems will continue to serve the functions and values they do today. The design will reduce erosion and sediment into the existing wetlands by implementing proposed drainage and erosion control BMP measures into the project.**

18. The impact upon the value of the sites included in the latest published edition of the National Register of Natural Landmarks, or sites eligible for such publication.

**This project is not located in or near any of the following Natural Landmarks listed on the National Register: Lake Umbagog East Inlet and Floating Island, Pondicherry Wildlife Refuge, Franconia Notch, Nancy Brook Scenic Area, Heath Pond Bog, Madison Boulder, White Lake Pitch Pine Forest, Mount Monadnock, Rhododendron Natural Area, and Spruce Hole Bog. ,**

19. The impact upon the value of areas named in acts of congress or presidential proclamations as national rivers, national wilderness areas, national lakeshores, and such areas as may be established under federal, state, or municipal laws for similar and related purposes such as estuarine and marine sanctuaries.

**N/A**

20. The degree to which a project redirects water from one watershed to another.

**N/A**



Additional comments

**U.S. Army Corps of Engineers  
New Hampshire Programmatic General Permit (PGP)  
Appendix B - Corps Secondary Impacts Checklist  
(for inland wetland/waterway fill projects in New Hampshire)**

1. Attach any explanations to this checklist. Lack of information could delay a Corps permit determination.
2. All references to “work” include all work associated with the project construction and operation. Work includes filling, clearing, flooding, draining, excavation, dozing, stumping, etc.
3. See PGP, GC 5 regarding single and complete projects.
4. Contact the Corps at (978) 318-8832 with any questions.

<b>1. Impaired Waters</b>	Yes	No
1.1 Will any work occur within 1 mile upstream in the watershed of an impaired water? See <a href="http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm">http://des.nh.gov/organization/divisions/water/wmb/section401/impaired_waters.htm</a> to determine if there is an impaired water in the vicinity of your work area.*		x
<b>2. Wetlands</b>	Yes	No
2.1 Are there are streams, brooks, rivers, ponds, or lakes within 200 feet of any proposed work?	x	
2.2 Are there proposed impacts to SAS, shellfish beds, special wetlands and vernal pools (see PGP, GC 26 and Appendix A)? Applicants may obtain information from the NH Department of Resources and Economic Development Natural Heritage Bureau (NHB) website, <a href="http://www.nhnaturalheritage.org">www.nhnaturalheritage.org</a> , specifically the book <u>Natural Community Systems of New Hampshire</u> .		x
2.3 If wetland crossings are proposed, are they adequately designed to maintain hydrology, sediment transport & wildlife passage?	x	
2.4 Would the project remove part or all of a riparian buffer? (Riparian buffers are lands adjacent to streams where vegetation is strongly influenced by the presence of water. They are often thin lines of vegetation containing native grasses, flowers, shrubs and/or trees that line the stream banks. They are also called vegetated buffer zones.)		x
2.5 The overall project site is more than 40 acres.		x
2.6 What is the size of the existing impervious surface area?	218,002 sq ft	
2.7 What is the size of the proposed impervious surface area?	279,043 sq ft	
2.8 What is the % of the impervious area (new and existing) to the overall project site?	22%	
<b>3. Wildlife</b>	Yes	No
3.1 Has the NHB determined that there are known occurrences of rare species, exemplary natural communities, Federal and State threatened and endangered species and habitat, in the vicinity of the proposed project? (All projects require a NHB determination.)		x
3.2 Would work occur in any area identified as either “Highest Ranked Habitat in N.H.” or “Highest Ranked Habitat in Ecological Region”? (These areas are colored magenta and green, respectively, on NH Fish and Game’s map, “2010 Highest Ranked Wildlife Habitat by Ecological Condition.”) Map information can be found at: <ul style="list-style-type: none"> <li>• PDF: <a href="http://www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm">www.wildlife.state.nh.us/Wildlife/Wildlife_Plan/highest_ranking_habitat.htm</a>.</li> <li>• Data Mapper: <a href="http://www.granit.unh.edu">www.granit.unh.edu</a>.</li> <li>• GIS: <a href="http://www.granit.unh.edu/data/downloadfreedata/category/databycategory.html">www.granit.unh.edu/data/downloadfreedata/category/databycategory.html</a>.</li> </ul>		x
3.3 Would the project impact more than 20 acres of an undeveloped land block (upland, wetland/waterway) on the entire project site and/or on an adjoining property(s)?		x
3.4 Does the project propose more than a 10-lot residential subdivision, or a commercial or industrial development?		x
3.5 Are stream crossings designed in accordance with the PGP, GC 21?		NA

<b>4. Flooding/Floodplain Values</b>	Yes	No
4.1 Is the proposed project within the 100-year floodplain of an adjacent river or stream?		x
4.2 If 4.1 is yes, will compensatory flood storage be provided if the project results in a loss of flood storage?		N/A
<b>5. Historic/Archaeological Resources</b>		
If a minor or major impact project, has a copy of the Request for Project Review (RPR) Form ( <a href="http://www.nh.gov/nhdhr/review">www.nh.gov/nhdhr/review</a> ) been sent to the NH Division of Historical Resources as required on Page 5 of the PGP?	x	

\*Although this checklist utilizes state information, its submittal to the Corps is a Federal requirement.

**NHDES Request for Waiver of Administrative Rule(s)**

**Rule to be waived: Env-Wt 806.05(b)**

**DES File # 2015-  
Barnstead 14121E**

**Name:** Matt R. Urban  
Wetlands Program Manager  
**Address:** Bureau of Environment  
NH Department of Transportation  
PO Box 483  
7 Hazen Drive  
Concord, NH 03302-0483  
**Tel No.** 603.271.3226

**Property Location:** This waiver relates to the New Hampshire Department of Transportation's (DOT) wetlands application to the Barnstead 14121E project. The proposed project involves safety improvements at the intersection of NH Route 28, Peacham Road and White Oak Road. The proposed reconstruction of NH Route 28 begins approximately 3,400 feet south of Peacham Road and White Oak Road, and extends north approximately 4,600 feet. Turn lanes will be constructed on NH Route 28 to provide exclusive right and left turn lanes in the northbound direction, and an exclusive left and a shared thru/right lane in the southbound direction. The improvements to Peacham Road extend approximately 800 feet east of the intersection. The improvements to White Oak Road extend approximately 900 feet west of the intersection. In addition, the approaches of White Oak Road, Yield Road, and Lake Shore Drive will be modified to eliminate the connection of Yield Road and Lake Shore Drive with NH Route 28. Instead, these roads will be united just to the west of NH Route 28, with a single connection to White Oak Road. Improvements to Lake Shore Drive extend approximately 300 feet west of its current intersection with NH Route 28.

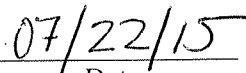
**Rule Waiver:** The DOT requests a waiver of Env-Wt 806.05(b), which states: *"If the applicant does not pay the full amount of the in-lieu fee payment within 120 days of the date of the notice, the department shall deny the application."*

**Reason for the Waiver:** The hardship that would be caused by Env-Wt 806.05(b) is due to the inability of the DOT to make payment of the in lieu fee prior to the award of the construction contract, and prior to approval by the Governor and Executive Council (G&C). The DOT will not likely be able to receive G&C approval and remit payment to the Department of Environmental Services (DES) within 120 days of the approval notice as required by rule.

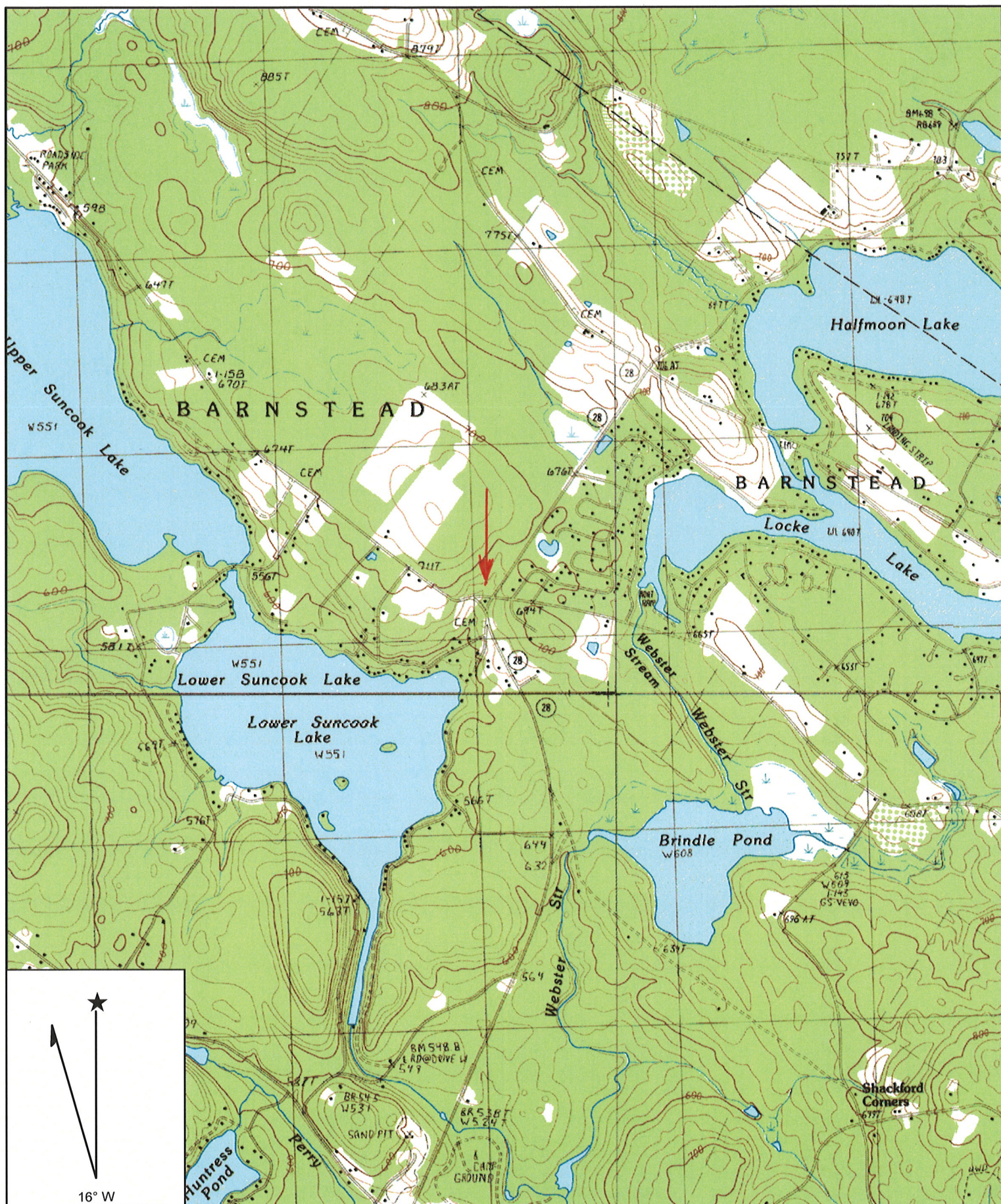
**Proposed Alternate:** The DOT proposes to replace the 120 day timeframe with 240 days.

**Criteria for Waiver:** Granting this request will not result in an adverse effect to the environment or natural resources of the state, public health, or public safety as the construction contractor would not be able to begin construction until the in lieu fee is made and the permit is issued for the project. As such, no additional wetlands or jurisdictional resources would be impacted as a result of granting this request. Granting this request is consistent with the intent and purpose of the rule being waived, as it simply extends the deadline for remittance of the in lieu fee payment.

  
Matt R. Urban

  
Date





Name: GILMANTON IRONWORKS  
 Date: 7/22/2011  
 Scale: 1 inch equals 2000 feet

Location: 043° 22' 44.29" N 071° 15' 24.90" W  
 Caption: Barnstead, 14121E





## New Hampshire Natural Heritage Bureau

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**To:** Kevin Nyhan  
PO Box 483, 7 Hazen Drive  
Concord, NH 03303-0483

**Date:** 7/22/2015

**From:** NH Natural Heritage Bureau

**Re:** Review by NH Natural Heritage Bureau of request dated 7/22/2015  
NHB File ID: NHB15-2437

Applicant: Kevin Nyhan

Location: Tax Map(s)/Lot(s):  
Barnstead

Project Description: Intersection improvements to enhance safety

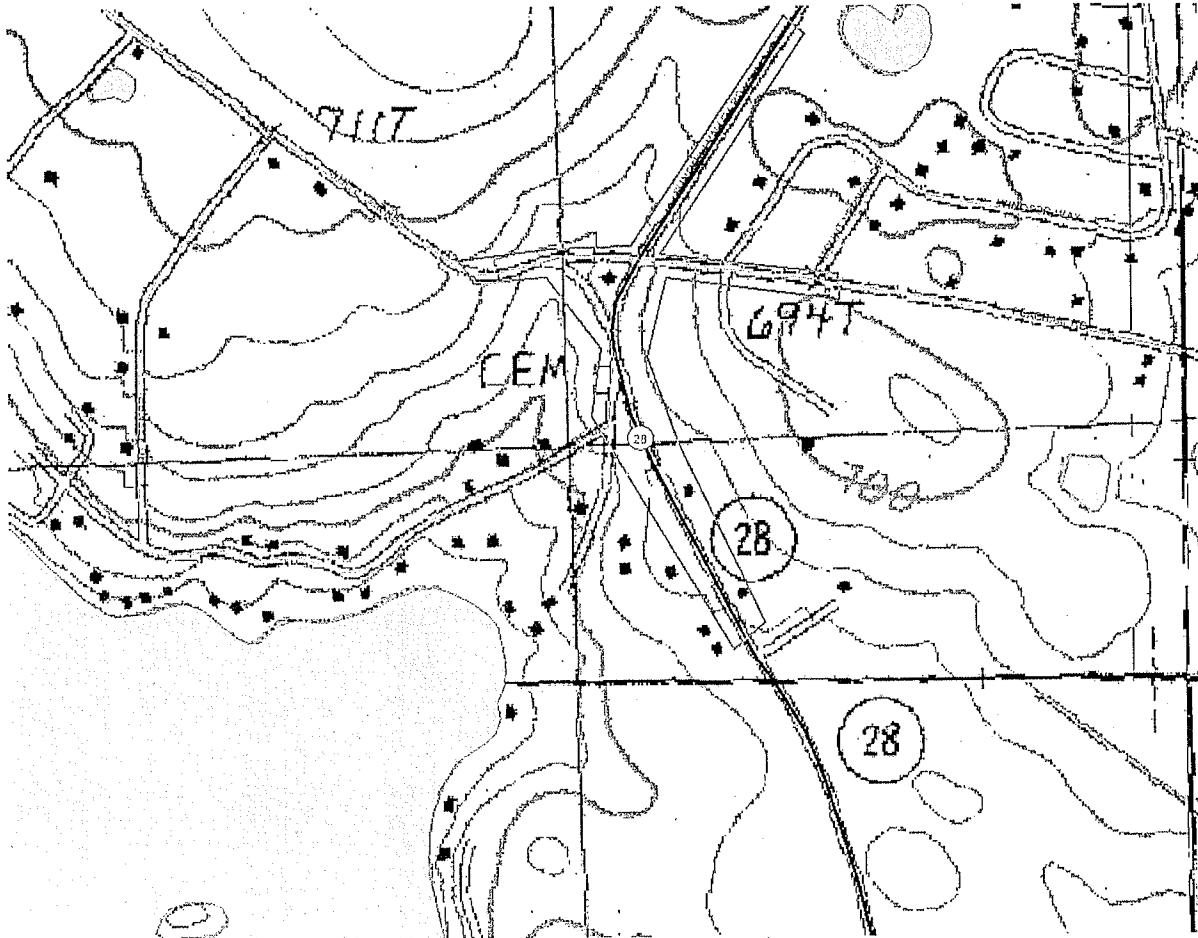
The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.

This report is valid through 7/21/2016.



MAP OF PROJECT BOUNDARIES FOR NHB FILE ID: NHB15-2437



**NOTES ON CONFERENCE:****Finalization of August Meeting Minutes**

The August 20, 2014 meeting minutes were finalized.

**Barnstead, X-A001(174), 14121E**

Kevin Nyhan began the presentation by providing background on the project, which consists of safety improvements, including minor realignment, at the intersection of NH Route 28/Peacham Road/White Oak Road in Barnstead. At the March 19, 2014 resource agency meeting, Gino Infascelli had indicated that there is an intermittent stream to the south of the intersection. Since that time, Bureau of Environment staff visited the site and StreamStats shows a blue line originating at the outlet of a culvert south of the intersection. This area identified as an intermittent stream, with a watershed of 0.03 square miles, is wetland at the culvert outlet with minimal if any defined channel.

In addition, there is a stream channel identified near the intersection under White Oak Road. It has a watershed area of 0.1 square miles. Carol Henderson asked if the culvert at this location would be perched as it is today. K. Nyhan described the condition of pipes through the intersection and indicated that it was very unlikely, in his opinion, that aquatic organism passage exists today due to the length and angles of the pipe system, and that it would not likely exist in the proposed condition. The existing pipe is approximately 12" in diameter, and is proposed to be replaced with a 42" diameter pipe. After discussion, it was agreed that the Department would evaluate whether the proposed culvert would be perched. *(Following the meeting, Highway Design confirmed that the pipe would not be perched in the proposed condition).* All stream channels will be evaluated for compliance with the stream crossing rules prior to submitting the permit application.

Josh Lafond discussed the water quality improvements being constructed for the project, which consist of the construction of two treatment swales that will result in improved water quality treatment. Currently, there is a narrow ditch that conveys stormwater but does not provide appreciable treatment. In addition, there is sheet runoff today. Post-construction runoff flows have been designed to closely mimic pre-construction flows.

Wetland impacts are anticipated to be approximately 31,500 square feet of permanent wetland impacts with approximately 30 linear feet of stream impacts. The Department coordinated with the Barnstead Conservation Commission via letter on February 5, 2014, but no response was received. As such, the Department proposes an in-lieu fee (Aquatic Resource Mitigation Fund payment) as compensatory mitigation for wetland impacts. The payment is expected to be approximately \$100,000-125,000 based on the impacts. This will be finalized with Lori Sommer prior to application submittal this winter. Mike Hicks asked what percentage of the total impacts are from stream impacts. Kevin indicated that he was unsure; however it is minimal when compared to the wetland impacts.

It is not expected that this project would need to be reviewed at a resource agency meeting again unless the impacts substantially change.

No one in attendance objected to the project as proposed.

*This project was previously reviewed on the following date: 03/19/2014.*

possibility. J. Folsom said that other means of powering the towers had been considered but that the submarine cables were determined to be the most efficient and reliable.

The Army Corps permit application being prepared would be for the New Hampshire side only. The work in Maine would fall under Maine's Programmatic General Permit, and would not require an Individual Permit. *Subsequent to this meeting, however, it was determined that the Individual Army Corps permit application would be prepared for both Maine and New Hampshire.* The proposed bridge will have an impact on the existing wharf, and as compensation for the functional impact the project will include dredge in front of the Port Authority wharf and an extension to be built on the northern end of the wharf. These projects will be submitted as part of a separate permit application, both a separate Army Corps Individual permit and a separate NH Wetlands Bureau permit.

A discussion of the mitigation for the two projects followed. R. Roach said that the Army Corps typically wouldn't require mitigation for the pier construction. V. Chase said that DOT would probably not be relieved of the obligation for mitigation for the bridge under NHDES's rules, and suggested a follow up meeting to discuss mitigation. For each project, an Individual Army Corps permit, NHDES wetland permit, an individual 401 water quality certification, a shoreland permit, and a Coastal Zone consistency certificate will be submitted.

The mitigation proposed for Cutts Cove (presented at the January 15, 2014 meeting) was discussed. Net dredge / fill requirements still have to be calculated for the mitigation area. The next steps for the project include the completion of the Essential Fish Habitat Assessment and Categorical Exclusion, both of which will be submitted by Maine DOT.

Lori Sommer asked what the timing of the mitigation construction would be. Bob Landry said that the winter construction start was in part to accommodate fisheries restrictions. Timing of the mitigation construction would be determined by when approvals were acquired.

Norm Farris asked if the dredge materials would be used in mitigation construction. The current plan is to use both the dredge spoils from the bridge and the dredge spoils from the wharf in mitigation construction. These dredge spoils would be made available over a two year period, so materials will need to be stored. R. Roach thinks the timeframe is too short for getting a mitigation plan approved in order to approve the Army Corps permit for the bridge construction. He suggested that an in-lieu fee might be appropriate for the bridge construction and that the Cutts Cove mitigation might be more appropriate for the Port Authority dredge and wharf extension. The Port Authority also has already completed mitigation for a permit that was never acted on, although a portion of that mitigation (eelgrass restoration) ultimately failed.

It was agreed that a meeting to discuss mitigation timing and requirements would be needed (later set for April 1, 2014 at NHDES).

*This project was previously reviewed on the following dates: 6/19/2013, 9/18/2013, 1/15/2014.*

#### **Barnstead, X-A001(174), 14121E**

Kathy Corliss presented this project, which involves safety improvements and the reconstruction of the intersection of NH Route 28 with Peacham Road and White Oak Road in the town of Barnstead. The proposed reconstruction of NH Route 28 begins approximately 3,400 feet south of Peacham Road and White Oak Road, and extends north approximately 4,600 feet. Turn lanes will be constructed on NH Route 28 to provide exclusive right and left turn lanes in the northbound direction, and an exclusive left and a shared thru/right lane in the southbound direction. The improvements to Peacham Road extend approximately 800 feet east of the intersection. The improvements to White Oak Road extend

approximately 900 feet west of the intersection. In addition, the approaches of White Oak Road, Yield Road, and Lake Shore Drive will be modified to eliminate the connection of Yield Road and Lake Shore Drive with NH Route 28. Instead, these roads will be united just to the west of NH Route 28, with a single connection to White Oak Road. Improvements to Lake Shore Drive extend approximately 300 feet west of its current intersection with NH Route 28

Kevin Nyhan described the anticipated environmental impacts as follows:

- Wetland impacts are anticipated to be approximately 22,000 sf for the purposes of upgrading drainage structures and for realigning the roadway.
- Wetland mitigation will likely be required for this project. Kevin contacted the Conservation Commission on mitigation opportunities on February 6, 2014, as well as discussing the need for mitigation at past public meetings. No response has been received. As such, the Department will propose to make an ARM fund payment (approx. \$73,000.00).
- Proposed work will require a Storm Water Pollution Prevention Plan pursuant to the EPA Construction General Permit.
- Lower Suncook Lake is approximately 750 feet away from the project area. It is impaired for dissolved oxygen. There are no direct drainage contributions and it is not anticipated that there would be impacts to Lower Suncook Lake.
- The impacts exceed the threshold for coverage under the Alteration of Terrain rules, which require the consideration of permanent water quality treatment measures in the project design. These will be considered during the final design phase.
- Invasive plants, including Japanese barberry, burning bush, multiflora rose, and glossy buckthorn, are located in the project area and Best Management Practices will be used during construction to prevent their spread.
- There are no NH Natural Heritage Bureau records in the project area.
- There is one stream crossing in the project area that will likely be affected by the work. The Department will evaluate this during final design.

Gino Infascelli commented that, based on the aerial photo, he thought an intermittent stream was located in the project area to the west, flowing into Lower Suncook Lake. K. Nyhan responded that the Department would look at that location.

*This project has not been previously discussed at a Monthly Natural Resource Agency Coordination Meeting.*

#### **Farmington, X-A001(092), 16212**

Cathy Goodmen and Nancy Spaulding provided an overview of the project. The project proposes to add a two-way left turn lane on NH Route 11 to tie into the existing two-way left turn lane southeast of the intersection with Main Street (NH Route 153). The turn lane would extend southerly approximately 3500 feet. A centerline rumble strip is also proposed from the southeasterly end of the proposed two-way left turn lane to the Rochester town line. The Cochecho River is located to the east of the project and the Rattlesnake River runs under NH Route 11 within the project area. There are no known species or communities of concern in the project area.

There are currently 10-foot and 8-foot shoulders in the project area. The two-way left turn lane would be added by narrowing the shoulders to 5 feet and 4 feet. Earthwork would be minimal and would consist primarily of slope work and clearing of vegetation along the shoulders. No work in any wetland or surface water would be required.

## Kevin Nyhan

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**From:** Sommer, Lori <Lori.Sommer@des.nh.gov>  
**Sent:** Friday, July 24, 2015 7:38 AM  
**To:** Kevin Nyhan  
**Subject:** RE: Barnstead, 14121E Wetland Mitigation

Hi Kevin,  
The calculations are correct as noted below. Thanks –

Lori

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**From:** Kevin Nyhan [<mailto:KNyhan@dot.state.nh.us>]  
**Sent:** Thursday, July 23, 2015 1:09 PM  
**To:** Sommer, Lori  
**Subject:** RE: Barnstead, 14121E Wetland Mitigation

Lori,  
One small correction that does not affect the ARM payment:  
Wetlands (SS/FO/EM): 31,136 sf  
Perennial stream (R2): 126 sf; 37 lf  
Bank (perennial stream): 75 lf  
(underlined numbers are for calculating ARM \$)

The ARM fund mitigation payment we are proposing is as follows:

Wetland Impacts (sf from calculator): \$118,125.29  
Stream/bank impacts (lf from calculator): \$26,880.00  
Total ARM fund payment: \$145,005.29

Sorry,  
This is the last one...I (try to) promise. ☺  
Kevin

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**From:** Kevin Nyhan  
**Sent:** Wednesday, July 22, 2015 11:45 AM  
**To:** 'Sommer, Lori'; Infascelli, Gino  
**Cc:** Matt Urban; Donald Lyford  
**Subject:** RE: Barnstead, 14121E Wetland Mitigation

Hi Lori,  
We have recalculated the impact numbers for this project (we made an error). Please confirm these “new” impact numbers.  
Thank you,  
Kevin

Wetlands (SS/FO/EM): 31,136 sf  
Perennial stream (R2): 334 sf; 37 lf  
Bank (perennial stream): 75 lf  
(underlined numbers are for calculating ARM \$)

The ARM fund mitigation payment we are proposing is as follows:





PFO1 Wetland at locations A, C, D, E





P&S Wetland at location B





P1B24x at Wetland Location K





Pfo/Em Wetland at Location L



R2UB2 Wetland at Location M







Pem wetland at Location N





PSS wetland at locations Q, R





09/26/2013 07:09

Forested Wetland in project area



Typical Culvert outlet

